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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
|-----------------|-------------|----------------------|---------------------|
| 09/447,080 | 11/22/99 | PARK | J 678-335- (P85) |

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WM02/0612

EXAMINER

NGUYEN, F

ART UNIT

PAPER NUMBER

2674

DATE MAILED:

06/12/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/447,080

Applicant(s)
JOUNG-KYOU PARK ET AL.

Examiner
FRANCIS NGUYEN

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2674



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirements.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

Claim Objections

1. Claims 1 and 3 are objected to because of the following informalities: incorrect word “characters” (page 11, claim 1, line 1, claim 3, line 1) . Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claim 3-4 are rejected under 35 U.S.C. 102 (e) as being anticipated by Kusunuki et al. (U.S. Patent 5,917,475).

4. As to **claim 3**, Kusunuki et al. discloses a character recognition device (**display device connected to computer** as shown in figure 1, column 3, lines 61-63) for recognizing character input through a touch screen (column 2, lines 30-31, **touch pad 1**, column 3, lines 63-67) , comprising:

a touch screen data recorder for storing touch screen data generated from an input of a character (**memory card RAMC 50**, column 4, lines 33-35);

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a timer for counting a predetermined waiting threshold time when there is no touch screen data generated(**timing processor unit 478, column 5, line 59 , time out processing as shown in step F in figure 44**);

a character recognition processor for performing character recognition of said stored touch screen data at each time when a stroke is input through said touch screen (**processor 41** as shown in figure 1, column 5, lines 1-5), wherein all the touch screen data are recognized as a single character (**step F30 for character recognition processing** as shown in figure 44) when said predetermined waiting threshold time is completely counted (**transition from step F to step F30 as shown in figure 44 , after time out processing,** column 13, lines 51-59) .

5. As to **claim 4**, note the same citation for claim 3. Kuzunuki et al. further discloses that said touch screen recorder (aforementioned **memory card RAMC 50**) and character recognition processor (**aforementioned processor 41** as shown in figure 1) are designed to have multitasking functions (**display can simultaneously display information from external device and information input from the touchpad**, see Abstract, column 14, lines 15-30) thereby performing the corresponding function when a touch screen data is generated and stored (touch screen data stored in **memory card RAMC 50**, column 4, lines 33-35).

6. Claim 5-6 are rejected under 35 U.S.C. 102 (e) as being anticipated by Van Kleeck (U.S. Patent 6,008, 799).

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7. As to **claim 5**, Van Kleeck discloses a character recognition method (column 1, lines 6-7) for recognizing character input through a touch screen (**On-screen keyboard 104** , **column 3**, lines 62-67) , comprising the steps of :

storing touch screen data generated from an input of a character (**on-screen keyboard data input as shown in step 1506 of figure 15A stored in data input buffer 121 of memory 11, column 4, lines 21-26**);

performing character recognition of said stored touch screen data as a character (**receive prefix character string in step 2201 as shown in figure 2201**) ; and

in case that another touch screen data is generated within a predetermined waiting threshold time (**using timer provided by operating system 115 to a developer to set an arbitrary time threshold period in application program 123, column 10, lines 15-17 , timer button 219** as shown in figure 2A), stopping the above operation and adding both the previously generated touch screen data and the newly generated touch screen data together as one character to thereby perform the character recognition (**document box displays word “te”** after user initiated with “flick” in region 309 on letter 201 as shown in figure 3, user actuates letters ‘x’ and ‘t’, document box completes entry with “text”, column 6, lines 28-37).

8. As to **claim 6**, note the same citation for claim 5. Van Kleeck further teaches the further step of outputting a character code corresponding to a result of said character recognition when a further touch screen data is not recognized within said predetermined waiting threshold time (**user initiated**

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“k”, “e”, “y”, and document box 203 displays word “keyboard” after user selection in dictionary list box 209, column 6, lines 50-65).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Van Kleeck.

11. As to **claim 1**, Van Kleeck discloses a character recognition device (**pen-based computer system as prior art**, column 1, lines 21-23, **system for entering character data with an on-screen keyboard**, column 3, lines 19-21) for recognizing character input through a touch screen (**on-screen keyboard 104** as shown in figure 1, column 6, lines 15-18, **character recognition in steps 1506 through 1536 as shown in figure 15A**) , comprising:

a touch screen data recorder for storing touch screen data generated from an input of a character (**data input storage area 121** as shown in figure 1);

a timer for counting a predetermined waiting threshold time (**timer provided by operating system 115 to a developer to set an arbitrary time threshold period in application program 123**, column 10, lines 15-17 , **timer button 219** as shown in figure 2A);

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a character recognition processor for performing character recognition of said stored touch screen data as a character (**processing unit 109 in conjunction with operating system 115 and application program 123**, as shown in figure 1), wherein a freshly stored touch screen data generated (data immediately stored in **data input storage area 121** as shown in figure 1) before completion of counting the predetermined waiting threshold time is added to the previous touch screen data to complete said character (**document box displays word “te”** after user initiated with “flick” in region 309 on letter 201 as shown in figure 3, user actuates letters ‘x’ and ‘t’, document box completes entry with “text”, column 6, lines 28-37) .

Van Kleeck fails to expressly teach a timer for counting a predetermined waiting threshold time when there is no touch screen data generated; no touch screen data generated implies an idle period,
-- no input from the user. However, **energy constraints** (e.g. processor with high operating clock, memory circuitry to be periodically refreshed, not only consumes power but also dissipates unnecessary heat when idle period occurs), **display screen constraints** (e.g. CRT teminals are subject to damage without screen saver function, backlight of liquid crystal display typically drain on battery life at prolonged period) **impose on developer’ s approach to have polling scheme using timer to minimize idle period (e.g. polling activity from mouse or keyboard).** It would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize the apparatus of Van Kleeck, then implement the timer accesssible by operating system 115, as taught by Van Kleeck, to specifically poll activity of user input to on-screen keyboard 104 , by adding said specific polling function in application program 123, because it would

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result in minimal idle period, consequently less unproductive task/process, also it would result in meeting both energy and display constraint requirements (e.g. screen saver activated to protect screen from phosphor burning damage, backlight automatically turnoff after a period of absence of user input to save power especially in portable terminal apparatus, microprocessor changed to low-power sleep state for power saving) .

12. As to **claim 2, note the same citation** for claim 1. Van Kleeck further discloses said that character recognition processor outputs a character code corresponding to a recognized character when another touch screen data is not generated before completion of counting to said predetermined waiting threshold time (**user initiated “k”, ‘e”, “y”, and document box 203 outputs word “keyboard” after user selection in dictionary list box 209, column 6, lines 50-65).**

13. The prior art made of record and not relied upon is considered pertinent to applicant' s disclosure.

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| U.S. Patent No. | Koziuk et al. | 6,058,485 |
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| U.S. Patent No. | Forest | 6,005,549 |
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| U.S. Patent No. | Dornier et al. | 5,579,489 |
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Reference Koziuk et al. is made of record as it discloses a method and apparatus comprising a timer used in touch screen power management.

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Reference Forest is made of record as it discloses a user interface method and apparatus comprising an on-screen keyboard, a cursor polling timer, utilizing data entry for ideographic languages (e.g. Japanese, Chinese, Korean).

Reference Dornier et al. is made of record as it discloses a hand-held portable computer comprising a touch screen,

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis Nguyen whose telephone number is (703) 308-8858. The examiner can normally be reached on weekdays from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.



Francis Nguyen

June 8th, 2001